

REMARKS

Claims 4 and 22 are amended. Claims 1, 2, 4-7 and 21-24 are now pending in the application. The amendments to the claims as indicated herein do not add any new matter to this application. Each issue raised in the Office Action mailed July 16, 2008 is addressed hereinafter, in order of appearance.

I. ISSUES NOT RELATING TO PRIOR ART

A. OBJECTION TO CLAIMS 4 AND 22

Claims 4 and 22 stand objected to (Office Action, page 3, sections 5 and 6). In response, Claims 4 and 22 have been amended.

B. REJECTION OF CLAIM 22 UNDER 35 U.S.C. §112

Claim 22 stands rejected under 35 U.S.C. §112 (Office Action, page 3, sections 8 and 9). Claim 22 has been amended.

C. REJECTION OF CLAIM 22 UNDER 35 U.S.C. §101

Claim 22 stands rejected under 35 U.S.C. §101 (Office Action, page 4, sections 10 and 11). This assertion is respectfully traversed.

The Office Action asserts that “means components of the system are best understood as software modules (see fig. 6B of the specifications, plug-ins, transform module, allocated, etc are software), given that no explicit hardware embodiments of these means can be found in the specifications. The system is software. Therefore, the claims are directed to non-statutory subject matter.” (Office Action, page 4, section 11) This is incorrect.

The disclosure includes FIGS. 3 and 4 and the specification describes the elements in the computer system 300 and box 400 depicted in FIGS. 3 and 4. Specifically, pages 5 and 6 of the specification state “FIG. 3 shows a computer device 300 suitable for use as a media device in accordance with the present invention. Computer device 300 includes display 302 having display screen 304. . . . In general, the computer device 300 is illustrative of one type of computer system, such as a desktop computer. . . . Any hardware platform suitable for

performing the processing described here in suitable for use with the present invention. . . . FIG. 4 illustrates subsystems that might typically be found in a computer device such as computer device 300. Subsystems within box 400 are directly interface to an internal bus 410. . . . The use of the bus 410 allows each of the subsystems to transfer data among the subsystems and, most importantly, with the CPU 416.

Therefore, the various means operatively connected to one or more processors in claim 22 may be computer device 300 and the means may include, for example, an internal bus 410 and a CPU 416.

Thus, Claim 22 is directed to statutory subject matter in the form of a machine or an article of manufacture.

Reconsideration and withdrawal of the rejection of claims 22 under 35 U.S.C. §101 is respectfully requested.

## II. ISSUES RELATING TO PRIOR ART

### A. CLAIMS 1, 2, 4-7 AND 21-24

Claims 1, 2, 4-7 and 21-24 are rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Shaffer et al. (U.S. Patent 6,757,277) in view of Packer et al. (U.S. Patent 6,046,980). The rejection is respectfully traversed.

For convenient reference, Claim 1 is repeated below.

1. A method for allocating bandwidth of a data network to a plurality of data streams, comprising:  
specifying apportionment of the bandwidth to a plurality of data classes, wherein each class of the plurality of data classes corresponds to a node in a hierarchical policy tree;  
receiving a plurality of data streams;  
determining a particular data class that corresponds to a particular data stream;  
wherein one or more other data streams that are associated with the particular data class are currently being transmitted;  
determining a plurality of acceptable transfer rates for the particular data stream;  
negotiating a transfer rate for the particular data stream from the plurality of acceptable transfer rates;  
wherein negotiating a transfer rate for the particular data stream includes selecting a transfer rate that (a) does not exceed the bandwidth apportioned to the

particular data class that is not being used by the one or more other data streams, and (b) does not cause the transfer rates of the one or more other data streams to go below minimum acceptable transfer rates of the one or more other data streams; and  
transmitting the particular data stream on the data network at the negotiated transfer rate;  
detecting termination of the particular data stream;  
in response to detecting termination of the particular data stream, determining whether another data stream from said particular data class is able to use bandwidth that was allocated to said particular data stream;  
in response to detecting that no data stream from said particular class is able to use bandwidth that was allocated to said particular data stream, performing the steps of  
(a) selecting an existing data stream based, at least in part, on where the node that corresponds to the data class of the existing data stream is, within the hierarchical policy tree, relative to where the node of said particular class is, within said hierarchical policy tree; and  
(b) increasing the bandwidth allocated to said existing data stream.

From the above it is apparent that Claim 1 recites “(a) selecting an existing data stream based, at least in part, on where the node that corresponds to the data class of the existing data stream is, within the hierarchical policy tree, relative to where the node of said particular class is, within said hierarchical policy tree”. Claims 21-24 contain similar subject limitations.

One purpose of establishing a policy tree is to assist in making decisions about where to allocate available bandwidth and performing load balancing. It is desired to award new bandwidth to a data stream having a similar position within a hierarchy of the claimed priority tree to that of a data stream which recently terminated.

In sharp contrast, Packer does not disclose navigating classes within a hierarchical policy tree. Packer’s classification tree (col. 15, line 30) is more like a data table, where policy info is looked up, but never evaluated relative to any other position within that tree. Packer’s classification tree is discussed only indirectly, not shown or illustrated, and is not described as having positions or distances between portions of the tree. Packer also has no equivalent for the claimed node, and thus has no way to disclose where a node is relative to a particular class. The

Office Action did not discuss this claimed element whatsoever. Packer's classification tree is not shown as being divided up into separate classes. Thus, within Packer's classification tree, a first element could be stored directly adjacent a second element, or the first and second elements could be stored far apart, and there would be no way of telling the difference.

For at least the above reasons, the rejections of Claims 1 and 21-24, as well as the rejections of all claims dependent therefrom, are invalid and should be withdrawn.

In rejecting this portion of Claim 1, the "Response to Arguments" section of the Office Action (page 2, section 4) asserts that Packer's classification tree teaches a "3.1 hierarchical policy tree comprising data classes", and also "3.2 allocating bandwidth based on policy". However, this statement is an oversimplification/misrepresentation of what Applicant is claiming. Applicant is not merely "allocating bandwidth based on policy", but instead is selecting an existing data stream based, at least in part, on where the node that corresponds to a data class of an existing data stream is located within a hierarchical policy tree.

For at least the above reasons, the rejections of Claims 1 and 21-24, as well as the rejections of all claims dependent therefrom, are invalid and should be withdrawn.

### III. CONCLUSIONS & MISCELLANEOUS

For the reasons set forth above, all of the pending claims are now in condition for allowance. The Examiner is respectfully requested to contact the undersigned by e-mail or telephone relating to any issue that would advance examination of the present application. As per MPEP Chapter 5, Applicant acknowledges that Internet communications may not be secure.

A petition for extension of time, to the extent necessary to make this reply timely filed, is hereby made. If applicable, a check for the petition for extension of time fee and other applicable fees is enclosed herewith. If any applicable fee is missing or insufficient, throughout the pendency of this application, the Commissioner is hereby authorized to any applicable fees and to credit any overpayments to our Deposit Account No. 50-1302.

Respectfully submitted,

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Dated: August 29, 2008

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